terol above 43 mg/dl had sensitivity of 73.8% and specificity of 92% that with decreasing criterion level to 35.5 mg/dl, sensitivity increased and reached 81.4%. Ratio of pleural fluid cholesterol to serum more than 0.3 had 65% sensitivity, 88% specificity and 85% efficiency. Ratio of pleural fluid bilirubin to serum more than 0.6 had 76.3% sensitivity, 74.1% specificity and 75.6% efficiency.

Conclussion: The criterion on 3 g/dl protein still had highest sensitivity and specificity in differentiating exudate from transudate and can be used as best determinant a lone. Also pleural fluid cholesterol more than 35.5 mg/dl has suitable sensitivity and specificity and the combination of pleural fluid protein and cholesterol can be used as best practical determinant. The criterion of pleural fluid cholesterol to serum ratio more than 0.3 has low sensitivity and with reduction of this radio to 0.14, its sensitivity increases but its specificity will decrease.

doi:10.1016/j.ijid.2008.05.1308

70.008

Procalcitonin, C-reactive Protein ESR and WBC Count: Marker of Sepsis in Burn Patients

M. Barati[1,*], F. Alinejad[2], M.A. Bahar[3], M. Satar Zadeh Tabrisi[3], N. Bodohi[3], H. Karimi[3]

[1] *Pediatric Infectious Diseases Research Center of Iran University of Medical Science, Tehran, Iran (Islamic Republic of)*
[2] *Burn & Reconstruction Research Center of Iran University of Medical Science, Tehran, Iran (Islamic Republic of)*
[3] *Burn & reconstruction Research Center of Iran University of Medical Science, Tehran, Iran (Islamic Republic of)*

Background: Diagnosis of sepsis is difficult, particularly in the burn patients where signs of sepsis may be present in the absence of a real infection. So we attempted to assess PCT, CRP, ESR, and WBC in burn patients and compared their clinical informative values for sepsis diagnosis. Method: We investigated the serum concentration of PCT, CRP, ESR and WBC of 30 burn septic patients and 30 burn patients without infection in a burn center hospital, Tehran, Iran

Results: A statistically significant higher PCT level was observed in patients with sepsis compared to those without sepsis (8.45 ± 7.8 versus 0.5 ± 1.0, respectively, $P < 0.001$). No other differences were observed in CRP, WBC, neutrophil count and ESR between these two groups of patients. The area under the ROC curve in the diagnosis of septic patients versus nonseptic patients was 0.97 for PCT (cutoff, 0.5 ng/ml) ($P < 0.001$) with sensitivity of 100% and specificity of 89.3%. Non-survivors had a mean PCT level of 6.37 ± 5.26, significantly higher than that measured in survivors (2.18 ± 5.26).

Conclusion: The value of WBC, Neutrophil count, ESR, CRP in the diagnosis of infection and sepsis were very poor in our study. But PCT is highly efficient laboratory parameter for the diagnosis of severe infectious complications after burn injury.

doi:10.1016/j.ijid.2008.05.1309

Evaluation of Enteroaggregative *Escherichia coli* (EAEC) Isolates by Multiplex PCR among HeLa Cells Adherent Isolates

S. Bouzari*, A. Davoudabadi, M. Abaszadeh, A. Jafari, M. Oloomi

Pasteur Institute of Iran, Tehran, Iran (Islamic Republic of)

Background: Diarrhea continues to be one of the most common causes of morbidity and mortality among infants and children, especially in developing countries. Among the bacterial pathogens, diarrheagenic *Escherichia coli* (DEC) is an important agent of endemic and epidemic diarrhea worldwide. DEC strains can be classified into six main pathotypes on the basis of their specific virulence properties, association with some serotypes, and different epidemiological and clinical features. The importance of enteroaggregative *Escherichia coli* (EAEC) strains in public health around the world is becoming increasingly clear. The pathogen was initially defined by the presence of a characteristic stacked brick pattern, designated aggregative adherence (AA) in the HEp-2 cell adherence assay. EAEC diagnosis has long been problematic. Several PCR methods, with both single and multiple target genes, have been reported for detecting the different DEC pathotypes. In the present study adherent E.coli strains were evaluated with multiplex PCR for the detection of EAEC isolates.

Methods: The HeLa cells adherence assay was employed for the determination of adherence property of *E. coli* isolates from children with diarrhea. Moreover the specific multiplex PCR assay designed for the detection of EAEC isolates was used

Results: Of the 330 isolates that exhibited adherence patterns (i.e. typical aggregative adherence (AA), diffuse adherence (DA), or AA like) other than localized adherence (LA), on PCR assay 254 isolates (77%) yielded products corresponding to the genes detectable by the multiplex PCR. Of these isolates 134 isolates (40.6%) were determined as typical EAEC and 120 isolates (36.4%) were detected as atypical EAEC and only 76 isolates (23%) could not be characterized by this PCR.

Conclusion: Based on the data obtained from this study, it could be concluded that the multiplex PCR assay for the detection of EAEC isolates is suitable and accurate technique and compared to the tissue culture assay is not laborious; it is fast, and reliable.

doi:10.1016/j.ijid.2008.05.1310

70.010

Rapid Detection of *Bla* $_{Shv}$ ESBL in Blood by Real Time PCR

S. Palasubramaniam[1,*], S. Muniandy[2], N. Parasakthi[3]

[1] *MAHSA College, Kuala Lumpur., Malaysia*
[2] *University of Malaya, Kuala Lumpur., Malaysia*
[3] *Monash University Malaysia, Kuala Lumpur, Malaysia*

Background: Septicemia is a pathological condition in which viable bacteria maybe present in the bloodstream. Therefore appropriate information on the causative agent